

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20054

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter or

Amendment of Part 90 of the
Commission's Rules to Adopt
Regulations for Automatic
Vehicle Monitoring Systems

PR Docket 93-61

DOCKET FILE COPY ORIGINAL

To: The Commission

JOINT REPLY TO OPPOSITION TO PETITION FOR RECONSIDERATION

Pinpoint Communication Networks, Inc., and MobileVision, Inc., (collectively, "the parties", by counsel, hereby reply to the Oppositions to Petitions for Reconsideration in the above docket.

I. INTRODUCTION

The Commission's proposed auction of 902-928 MHz spectrum to LMS providers is jeopardized by the LMS Reconsideration Order's new clarifications on interference and safe harbor provisions.

The parties seek reconsideration of the Commission's policy statements which change the "interference hierarchy" between multilateration LMS users and Part 15 unlicensed uses in two ways:

1. The FCC established a new policy, by way of "clarification," that LMS may not "degrade, obstruct, or interrupt Part 15 devices to such an extent that Part 15 operations would be negatively affected.^{1/}

^{1/}"Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems," Order on (continued...)

2. Multilateration LMS licenses are not permitted to invoke FCC procedures to correct actual cases of harmful interference to their licenses from Part 15 licensees, since such licensees enjoy an irrebuttable "presumption" of non-interference.^{2/}

II. The Oppositions

Oppositions were filed by the "Part 15 Coalition"^{3/}, Metricom, the Consumer Electronics Manufacturers Association, Symbol Technologies, Inc., and Spectralink Corporation. Generally, the pleadings were consistent in their basis for opposition.

A. LMS Interference to Part 15 Devices

The Oppositions consistently admitted that Part 15 unlicensed devices were "secondary" to LMS licensed operations in the 902-928 MHz band. However, the Oppositions claimed that Part 15 uses could not be "negatively affected" in any way by LMS operations, agreeing with the Commission's new iteration of the interference "standard."

B. Part 15 Interference to LMS Devices

The Oppositions generally were in agreement that the LMS Reconsideration did not "alter the relative priority of Part

^{1/}(...continued)

Reconsiderations, _____ FCC Rcd _____, FCC 96-115, p.8, ¶15 (released March 21, 1996), p. 8, hereinafter "LMS Reconsideration."

^{2/}Id., p.10, ¶20.

^{3/}The "Coalition" neither identified itself nor its members. Also, the "Coalition" failed to serve Pinpoint or other Petitioners with its Opposition. Pinpoint learned of it only through review of Metricom's Opposition. Pinpoint notified the "Coalition" counsel, and was then served five days after the Opposition was filed.

15 technologies and Part 90 LMS systems,"^{4/} or the hierarchy of uses, even though the licensed users are precluded from filing complaints of actual interference by unlicensed users with the Commission.

III. LMS Interference to Part 15 Operators;

A. The Testing Clarifications Define Operational Parameters

The Oppositions attempt to separate testing from operational requirements. Symbol is wrong in claiming that testing is a "precondition to licensing."^{5/} LMS licenses under the new rules were issued on or about March 26, 1996, and have become final. Testing is a condition of licensing, not a precondition.^{6/} The licenses are "conditioned upon" demonstrating compliance with the testing requirement. Thus licenses can be issued, and testing proceeds in the normal course of business.

This however, is where LMS licensees may be placed in jeopardy by the new clarified language. An LMS licensee potentially can be shut down if a new Part 15 user enters the market and complains to the Commission that its Part 15 operations are "negatively affected,"^{7/} whatever that means, by pre-existing, licensed LMS operations. The interference standard has been so lowered as to make almost any LMS operation

^{4/}"Coalition Opposition at 4; Metricom Opposition at 4-6.

^{5/}Symbol Opposition at 5.

^{6/}See 47 CFR §90. 353(d).

^{7/}LMS Reconsideration, P.8 ¶15.

"interfere" with any Part 15 operation. This is not a hypothetical scenario. See the discussion in Sections B and C below.

B. To Date, Testing Demonstrates that LMS Technology Does Not Interfere With Traditional Part 15 Local Technologies

Under experimental license, Pinpoint has been engaged in testing LMS system interference to existing Part 15 operators in the Dallas, TX, market since November, 1995. Currently, Pinpoint operates sixteen (16) transmitter sites providing LMS service to approximately 500 square miles of the Dallas metropolitan market, including the City of Dallas and its most populous northern suburbs, e.g., Richardson, Plano, and Addison. Pinpoint's base station transmitters operate at 300 watts ERP with mobiles transmitting at 20 watts. Pinpoint's base station transmitters operate 24 hours a day, i.e., continuously, and have been so operating for the past six (6) months.

The Dallas market was chosen for its convenient location to Pinpoint's headquarters in constructing, monitoring, and maintaining the system. Also, Dallas is one of the largest of the nation's urban markets with the hundreds of thousands, if not millions, of installed Part 15 operations, including those operated or manufactured by Symbol and the members of CEMA and most of the others filing oppositions.^{8/}

^{8/}This includes Symbol's "portable bar code driven data transaction systems, scanners, and hand-held computers... "used in "retail, warehousing, distribution, manufacturing, package and parcel delivery, health care, and other industries", Symbol Opposition at 1. All these are substantial activities in the
(continued...)

MobileVision has operated its system in Southeast Florida utilizing 6 sites covering approximately 200 square miles since 1992. MobileVision has tested various power levels up to 300 watts ERP. The MobileVision system has transmitted narrow band and spread spectrum signals with spread spectrum signals being transmitted continuously 24 hours per day. To date, MobileVision has not been notified by any Part 15 provider of interference to its system, having asked in its filings for comments for any interference during the rule making proceeding.

Emphatically, Pinpoint and MobileVision already have passed their testing requirements under Section 90.353(d) and have fulfilled this condition of their licenses.^{9/} Neither Pinpoint nor MobileVision have been advised, either by Part 15 operators, users, or manufacturers, or by the FCC, of any complaints of harmful interference. The Party's testing will, however, continue in the Dallas market, and Part 15 operators are encouraged to contact Pinpoint's Dallas office to install their test equipment if they are not already operating in the Dallas market, or to contact Pinpoint or its counsel if they are experiencing any substantial, harmful interference.

^{8/}(...continued)

Dallas market. It also includes the "wireless speaker systems" referred to in CEMA's Opposition at 5, note 12.

^{9/}90.353(d) requires licensees to "demonstrate through actual field tests that their systems do not cause unacceptable levels of interference to Part 15 devices."

C. New, PCS-Type Part 15 Uses Would Take Advantage of the Commission's New Interference Standards, and Present Auctionable LMS Spectrum.

Despite interference free testing, Pinpoint's and MobileVision's licenses may not be entirely secure, under the "clarifications" recently issued in the LMS Reconsideration. For example, Metricom's multicell, low-power-outdoor "broadcast" operations threaten to jeopardize LMS licenses any time Metricom enters a market and claims that its highly vulnerable Part 15 operations are degraded, obstructed, interrupted, or "negatively affected" in any way. Most Part 15 operations in Dallas or Southeast Florida are localized operations, not designed for network-type cellular/PCS transmissions, but for factories, warehouses, grocery stores, residences, i.e., extremely localized, non-intrusive uses.

Metricom's system is fundamentally different, for example, both in its intended use and structure. Metricom typically is providing data service and wireless internet access to customers, by installing shoebox-size transmitters on telephone poles or other structures at multiple sites, blanketing an entire metropolitan area with directionalized and/or omni-directional signals. Under Paragraph 15 of the LMS Reconsideration, the potential for interference claims by a multiple-microcell Part 15 broadcaster increases dramatically. Such claims potentially jeopardize LMS investment, by shutting down operations, forcing extensive litigation before the FCC, or forcing expensive, continuous system redesign, even after months of successful testing without harmful interference to existing Part 15 users.

Part 15 users, including Metricom, as secondary services, can avoid LMS interference simply by selecting to operate elsewhere in the 902-928 band.^{10/}

Public and private investment will not likely embrace an auction of licenses where the license is constantly subject to retesting for interference to existing or newly developed Part 15 broadcast or cellular/PCS-type architectures. Few, if any major investors have been willing to make a significant commitment to this LMS regulatory quagmire. However, it is not too late to correct this confused situation. LMS technology does not interfere with millions of existing Part 15 operations which faithfully operate within the original, localized intent of the Part 15 rules. Part 15 architectures presently being developed and installed, should not be permitted to upset this "balance", which the Commission itself has now upset through its vague, inconsistent, and ambiguous "clarifications" in the LMS Reconsideration.

In conclusion, the Commenters are confident that their testing demonstrates that LMS can co-exist in the band with most existing Part 15 operators. Those existing or new Part 15 operators who would cause or experience harmful interference should use other frequencies already available to them. Unless the Commission eliminates the decidedly unbalanced language in Paragraph 15 of the LMS Reconsideration that LMS must not

^{10/} LMS operates at 919.75-927.75 MHz. This leaves Part 15 operators free to operate in 909.75-919.75 MHz without experiencing or causing harmful interference to LMS operators.

"degrade, obstruct, interrupt, or negatively affect" Part 15 operations, LMS operators, and the LMS auctions, will never get off the ground.

IV. Part 15 Interference to LMS Operations

The Oppositions argue that the "hierarchy" of licensed and unlicensed use of the 902-928 band has not changed. The Oppositions argue that Part 15 operations are "secondary" and:

may not cause harmful interference to... all other operations in the band."^{11/}

However, the Commission undermines the "hierarchy" two paragraphs later, when it cut off any escape valve for an LMS operation to complain of actual interference from licenses presumed, by rule, not to cause interference:

"... multilateration LMS system operators will not be able to file a complaint with the Commission where the Part 15 user has satisfied the "safe harbor" provisions."^{12/}

The "safe harbor" is a fancy euphemism for a "license." Once a Part 15 operator is within the "safe harbor" license standards, the LMS licensee has no recourse to complain of actual, harmful interference to its operations, even though:

- A. A grandfathered LMS licensee cannot change its tower site by greater than 2 km;
- B. A Part 15 "safe harbor" operation, e.g., Metricom, blankets all potential area tower sites with harmful interference.

^{11/}LMS Reconsideration at ¶18.

^{12/}Id, ¶20.

- C. A Part 15 operation directionalizes its signal to transmit a video signal from the base of a tower to its antenna, and an LMS operator is on the same tower. MobileVision has experienced this problem in Boca Raton, Florida, from a Part 15 device which falls within the FCC's "safe harbor" provisions.
- D. A Part 15 operator transmits from a mountain top in California or Washington State enjoying significant HAAT advantages over the surrounding valleys; thereby blanketing interference to multilateration LMS transmitters at lower elevations.^{13/}
- E. A Part 15 operator in a market establishes a Point to Point directionalized operation which intersects with an existing, licensed LMS tower site.

All these scenarios can cause actual, harmful interference to LMS operators.

The Commission must establish remedies for correcting actual cases of harmful interference to licensees. This is the Commission's primary responsibility - to resolve cases of actual interference:

"The agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances." WAIT Radio v. FCC, 418 F.2d 1153, 1157 (D.C. Cir. 1969) (citations omitted)."

We propose the following procedure for LMS operations to rebut the presumption of Part 15 non-interference. If an unlicensed Part 15 operator creates greater than a 5 db degradation in a licensed LMS signal, then the LMS operator is permitted to file a complaint with the Commission overcoming the presumption of non-interference under 90.361. The complainant

^{13/}See, e.g., the tower sites listed at 90.621 of the rules, 47 CFR §90.621 (b)(2)(ii), Table 1, and (b)(3).

also must show that, prior to filing the complaint, the complainant contacted the user or operator of the Part 15 device and attempted to reach a mutually satisfactory resolution of the interference cause.

This standard will protect most Part 15 operators. Pinpoint supports Teletrac's Petition concerning tower site relocations and reconsiderations of the 2 km limitations as a significant way to avoid interference disputes.

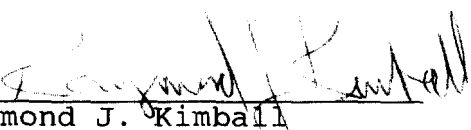
In conclusion, viable LMS service to the public, and the LMS auctions, are jeopardized by the interference policies announced on reconsideration. Part 15 operators receive unnecessarily broad protections; LMS licenses are not sufficiently protected under the announced interference policies to encourage investment.

WHEREFORE, the premises considered, Pinpoint requests that its Petition for Reconsideration be granted.

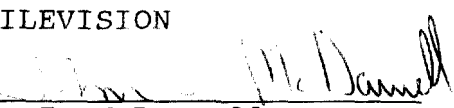
Respectfully Submitted,

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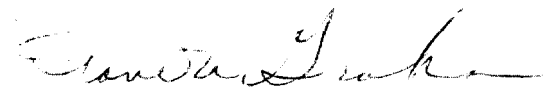
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